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Dieter Weiss

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MARTINE PENILLA & GENCARELLA, LLP
710 LAKEWAY DRIVE
SUITE 200
SUNNYVALE, CA 94085

EXAMINER

MURDOUGH, JOSHUA A

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3621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,961	Applicant(s) WEISS ET AL.	
	Examiner JOSHUA MURDOUGH	Art Unit 3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/27/2007, 12/29/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgements

1. This action is responsive to Applicants' preliminary amendments received 18 May 2006.
2. This action has been assigned paper number 20100317 for reference purposes only.
3. Claims 1-19 are pending.
4. Claims 1-19 have been examined.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 18 and 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
7. These claims are directed toward "[a] computer program product." In their specification, Applicants state "a computer program product may be a physical medium, e.g., a semiconductor memory or a diskette or a CD-ROM. The computer program product may also be, for example, a non-physical medium, e.g., a signal transmitted over a computer network" (Page 6, Lines 15-18). MPEP § 2106 IV(B) states "[a] transitory, propagating signal ... is not a process, machine, manufacture, or composition of matter." ... Thus, such a signal cannot be patentable subject matter." Because Applicants have expressly recited in their specification that a "computer program product" can be "a signal transmitted over a computer network" and because MPEP § 2106 IV(B) states a transitory, propagating signal cannot be patentable subject matter, claims 18 and 19 which are directed to a transitory, propagating signal in at least one interpretation, are

non-statutory. See also *In re Nuijten*, 500 F.3d 1346, 84 USPQ2d 1495 (Fed. Cir. 2007) and Subject Matter Eligibility of Computer Readable Media, 1351 OG 212.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 1 recites “determining identification information which identifies the user” but does not link the identification information or its determination to any other part of the method. Therefore, one of ordinary skill in the art would not understand the metes and bounds of this claim.

11. Claim 1 also recites “sending data to the background system to authenticate the terminal at the background system” and “sending data which is related to the personal feature of the user to the background system.” One of ordinary skill in the art would not understand if the two recitations of “data” are the same data or different data. If it is Applicants’ intent for the data to be different, the Examiner respectfully suggests using an adjective to distinguish the pieces of data, such as “terminal data” and “feature data” respectively.

12. Claims 8 and 15-19 also contain multiple uses of the word “data” where it is not clear if they are the same data or different data. Again, the Examiner suggests naming the different

pieces of data so one of ordinary skill in the art would understand the metes and bounds of the claims.

13. Claim 1 recites “playing back a secret given by the secret data to the user.” One of ordinary skill in the art would not understand how to “playback” text, image, or tactile information. Claim 4 recites “the secret played back to the user is at least one of a text information, acoustic information, visual information, and tactile information” which indicates that claim one at least can read on text and tactile information. Because the claim reads on playing back text or tactile information, and because one of ordinary skill in the art would not understand how to playback text or tactile information, the claim is indefinite because the metes and bounds of the claim cannot be determined.

14. Claims 15, 17, and 18 contain similar limitations and are rejected under the same rationale.

15. Claim 1 further recites “sending data to the background system...to transmit user identification data.” This does not make grammatical sense. It is the Examiner’s position that Applicants are attempting to define the data being sent. However, as currently worded, the claim suggests that sending one piece of data somehow results in another piece being transmitted. One of ordinary skill in the art would not understand the metes and bounds of this limitation.

16. Claims 15 and 18 contain similar limitations and are rejected under the same rationale.

17. Claim 16 is directed to "[a] background system...adapted for: receiving...and receiving...by the user" and conditionally "accessing...and sending." It is unclear what structure someone would need to be in possession of in order to infringe this claim. Because one of ordinary skill in the art would not know whether their system infringes this claim, the claim is indefinite.

18. Claim 17 is similarly directed to "[a] system...adapted for." Claim 17 does recite that the system comprises "a background system and at least one terminal." However, the structure of the background system and the terminal(s) is unclear. Therefore, claim 17 is rejected under the same rationale.

19. Claim 17 recites "[a] system comprising a background system and at least one terminal...the system is adapted for...performing the transaction using data pertaining at least to the personal feature of the user." It is unclear which part of the system, the background system or the terminal, is "adapted for" "performing the transaction." Because one of ordinary skill in the art would not understand which component is adapted for performing the function, they would not understand the metes and bounds of the claim.

20. Claim 17 also recites "the system being equipped for authorizing a transaction by a user." One of ordinary skill in the art would not understand what structure is necessary in order for "the system" to be "equipped for authorizing a transaction." Because the structure is unclear, one of ordinary skill in the art would not be able to know if their system infringes on this claim.

21. The Examiner finds that because particular claims are rejected as being indefinite under 35 U.S.C. §112 2nd paragraph, it is impossible to properly construe claim scope at this time. However, in accordance with MPEP §2173.06 and the USPTO's policy of trying to advance prosecution by providing art rejections even though these claim are indefinite, the claims are construed and the art is applied as much as practically possible.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 1-19, as understood by the Examiner, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lai On (US 2002/0059531) in view of Schneier (Applied Cryptography).

24. As to claims 1, 8, and 13-18,

a. A method for authorizing a transaction by a user using a terminal ("First Vendor," Figure 3, 301) which is capable of communicating with a background system ("Authentication Site," Figure 3, 302) , with steps performed by the terminal comprising:

- b. determining identification information ("Identification Information," Figure 3, 301) which identifies the user ("The login information includes an identification of the user." Abstract),
- c. sending data to the background system ("The First Vendor transmits the Identification Information to and Authentication Site," Figure 3, 302) to authenticate the terminal at the background system ("Verifies the Identification Information," Figure 3, 303) and to transmit user identification data from which the identity of the user can be derived ("The login information includes an identification of the user." Abstract), to the background system ("The First Vendor transmits the Identification Information to and Authentication Site," Figure 3, 302),
- d. receiving (sent to First Vendor, Figure 3, 303) data ("Second Site's Site Key," Figure 3, 303) assigned to the user from the background system (Authentication Site generates and transmits the keys, Figure 3, 303),
- e. playing back a data given by the received data to the user (Figure 3, 305),
- f. determining a personal feature of the user ("The first or second vendor can require that additional identification be entered before the transaction, such as a PIN number or a biometric," [0025]), and
- g. sending data which is related to the personal feature of the user to the background system to signal or document the authorization of the transaction by the user (the biometric information is part of the identification information, and is therefore also transferred to the Authentication Site. [0020] & Figure 3, 301).

25. Lai On does not expressly disclose that the keys are “secret data” and the communication processes between the terminal and the background system are protected from attacks at least in part by at least one of time stamps, sequence numbers, random numbers and an encryption with a session key.

26. However, Schneier discloses that symmetric keys, used for communications must remain secret (Page 4, Paragraph 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of Lai On to use the keys to encrypt the communications and make the keys secret because the keys need to be secret in order for the communications to be secret (Id.).

27. As to claim 2, Lai On further shows:

h. the terminal sends to the background system a message secured with at least one of a MAC (“User Session Key,” Figure 3, 305) of and a cryptographic signature for authentication at the background system.

28. As to claim 3, Lai On further shows:

i. the message contains the user identification data that corresponds to the identification information determined by the terminal or has been derived from it (Logging in requires Identification Information, Figure 3, 305 & [0010]) .

29. As to claim 4, Lai On further shows:

- j. the secret played back to the user is at least one of a text information (a key is a string of characters), acoustic information, visual information, and tactile information.
30. As to claim 5, Lai On further shows:
- k. transaction data is also displayed to the user [0021].
31. As to claim 6, Lai On further shows:
- l. the personal feature is a biometric feature of the user [0025].
32. As to claim 7, Lai On further shows:
- m. receiving acknowledgement data from the background system and at least one of displaying and printing out an acknowledgement for the user (in order for the key to be sent to the user through the second site it has to be displayed or printed, Figure 3, 308).
33. As to claim 9, Lai On further shows:
- n. the secret data pertains to a secret which changes from one transaction to the next (for each of the countless potential second sites, there would be a different "Second Site's Site Key" [0024]).
34. As to claim 10, Lai On further shows:
- o. the secret data pertains to a secret which depends at least in part on transactions performed previously (the Second Site's Site Key was acquired during the previous

transaction with the First Vendor, Figure 3).

35. As to claim 11, Lai On further shows:

p. the data which pertains at least to the personal feature of the user is checked, and the transaction is considered as authorized by the user only if this check is successful (Biometrics are referred to as a security measure, therefore, unless the data is verified, access would not be allowed [0025]).

36. As to claim 12, Lai On further shows:

q. acknowledgement data is sent to the terminal if the check is successful (The Authentication Site returns the Second Site's Site Key as a confirmation that the data matched. Figure 3, 308).

Claim Interpretation

37. The Examiner hereby adopts the following interpretations under the broadest reasonable interpretation standard. In accordance with *In re Morris*, 127 F.3d 1048, 1056, 44 USPQ2d 1023, 1029 (Fed. Cir. 1997), the Examiner points to these other sources to support his interpretation of the claims.¹ Additionally, these interpretations are only a guide to claim terminology since claim terms must be interpreted in context of the surrounding claim language. Finally, the following list is not intended to be exhaustive in any way:

¹ While most definition(s) are cited because these terms are found in the claims, the Examiner may have provided additional definition(s) to help interpret words, phrases, or concepts found in the definitions themselves or in the prior art.

- r. ***Adapt***: “to make fit (as for a specific or new use or situation) often by modification.” Webster’s Ninth New Collegiate Dictionary, Merriam-Webster Inc., Springfield, M.A. 1986.
- s. ***For***: “1 a -- used as a function word to indicate purpose... b -- used as a function word to indicate an intended goal” Webster’s Ninth New Collegiate Dictionary, Merriam-Webster Inc., Springfield MA, 1986.
- t. ***If***: “1 a : in the event that” Webster’s Ninth New Collegiate Dictionary, Merriam-Webster Inc., Springfield, M.A., 1986.
- u. ***Pertain***: “to belong as a part, member, accessory, or product.” Webster’s Ninth New Collegiate Dictionary, Merriam-Webster Inc., Springfield, M.A., 1986.
- v. ***Transaction***: “any sale, assignment, lease, license, loan, advance, contribution, or other transfer of any interest in or right to use any property (whether tangible or intangible) or money, however such transaction is effected, and whether or not the terms of such transaction are formally documented.” Dictionary of Business Terms, 3rd Edition, Barron’s Educational Series Inc., Hauppauge NY, 2000.

Conclusion

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA MURDOUGH whose telephone number is (571)270-3270. The Examiner can normally be reached on Monday - Thursday, 7:00 a.m. - 5:00 p.m.
39. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner’s supervisor, Andrew Fischer can be reached on (571) 272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

40. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua Murdough
Examiner, Art Unit 3621

/EVENS J. AUGUSTIN/
Primary Examiner, Art Unit 3621